Title (en)

HEAT EXCHANGER FOR HYDROGEN-OPERATED FUEL SUPPLY SYSTEMS

Title (de)

WÄRMEÜBERTRAGER FÜR WASSERSTOFFBETRIEBENE KRAFTSTOFFVERSORGUNGSANLAGEN

Title (fr)

ECHANGEUR DE CHALEUR POUR INSTALLATIONS D'ALIMENTATION EN CARBURANT FONCTIONNANT A L'HYDROGENE

Publication

EP 1792071 B1 20080213 (DE)

Application

EP 05763515 A 20050802

Priority

- EP 2005008352 W 20050802
- DE 102004045638 A 20040921

Abstract (en)

[origin: WO2006032323A1] A fuel supply system for a fuel cell or internal combustion engine which can be operated with hydrogen, comprising a hydrogen tank provided for storage of frozen liquid hydrogen; a heat exchanger for prewarming the frozen hydrogen, wherein the heat exchanger has at least one fuel inlet which is fludically connected to the hydrogen tank; at least one fuel outlet which is fluidically connected to the fuel inlet and which is used to discharge prewarmed hydrogen from the heat exchanger; at least one coolant inlet which is used to supply hot coolant from a coolant circuit of the internal combustion engine or fuel cell to the heat exchanger; and at least one coolant outlet which is fluidically connected to the coolant input and used to discharge cooled coolant, which has given off heat to the hydrogen, from the heat exchanger. The heat exchanger is surrounded by a fluid-tight outer covering. An intermediate area, through which a fluid giving off heat to the fluid and isolating the heat exchanger from the surrounding area, is provided between the heat exchanger and outer covering.

IPC 8 full level

F02M 21/02 (2006.01)

CPC (source: EP US)

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Cited by

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